# Technical Data

## Classic Series Heat Pump Pool Heaters

### The Pool and Spa Heating Experts™

- **Model**
  - R5450ti
  - R6450ti
  - R8450ti

<table>
<thead>
<tr>
<th>Model</th>
<th>Heat BTUH Output</th>
<th>C.O.P.</th>
<th>Compressor</th>
<th>Refrigerant</th>
<th>Voltage</th>
<th>Minimum Circuit Ampacity</th>
<th>Maximum Breaker Size (Amps)</th>
<th>Electrical Input (kw)</th>
<th>Heat Exchanger</th>
<th>Water Flow (gpm)</th>
<th>Shipping Weight (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>R5450ti</td>
<td>103,000/97,000</td>
<td>6.0/5.7</td>
<td>Scroll</td>
<td>R-410A</td>
<td>208/230V-1Ph-60Hz</td>
<td>29.3</td>
<td>60</td>
<td>5.0</td>
<td>Titanium</td>
<td>15-60</td>
<td>264</td>
</tr>
<tr>
<td>R6450ti</td>
<td>119,000/113,000</td>
<td>5.9/5.7</td>
<td>Scroll</td>
<td>R-410A</td>
<td>208/230V-1Ph-60Hz</td>
<td>33.7</td>
<td>60</td>
<td>5.9</td>
<td>Titanium</td>
<td>15-60</td>
<td>341</td>
</tr>
<tr>
<td>R8450ti</td>
<td>140,000/130,000</td>
<td>5.6/5.3</td>
<td>Scroll</td>
<td>R-410A</td>
<td>208/230V-1Ph-60Hz</td>
<td>41.7</td>
<td>60</td>
<td>7.3</td>
<td>Titanium</td>
<td>15-60</td>
<td>423</td>
</tr>
</tbody>
</table>

*Tested to AHRI 1160   All models comply with Florida 4.0 minimum C.O.P. requirement.*

### Model Designation

- **R** = Raypak Brand
- **6** = Approximate Horsepower
- **4** = VBL Cabinet Design
- **5** = Model Revision
- **R6450ti-E-HC**
- **PD** = Power Defrost
- **HC** = Heat Cool
- **E** = Digital Control
- **T** = Titanium Heat Exchanger
- **0** = 1 phase 208/230V

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In keeping with its policy of continuous progress and product improvement, Raypak reserves the right to make changes without notice.
Technical Data
Classic Series Heat Pump Pool Heaters

Classic Model Standard Features

Cabinet Durability
• Exclusive DuraSteel™ Powder-Coated Cabinet
  The same rugged steel construction used by Rheem and all other major air conditioner manufacturers. Fully louvered steel jacket protects the evaporator coil from storm debris, hail and typical backyard maintenance activities, not to mention the winning goal in a backyard soccer match. A plastic cabinet is no match for the Raypak DuraSteel cabinet.

Quiet Operation
• 3 Blade Swept Wing Fan
  Precision engineered and tuned for our heat pump. This means more air flow over the coil which translates to greater efficiency, all while being whisper quiet!
• Extremely Tough Composite Base
  Rust proof and ultra sound deadening base material keeps your heat pump up and running for years while holding sound levels to an absolute minimum.

Compressor
• Copeland Scroll Compressor
  Scroll compressors are quiet and efficient compared to piston type compressors. They provide higher efficiency, lower sound levels, superior durability and unsurpassed reliability. The unique design of a scroll compressor actually wears in over time, not out!

Titanium Heat Exchanger
• Spiral Titanium Tube
  The spiral titanium tube heat exchanger provides a corrosion-free waterway that can withstand the abuses of harsh pool chemistry. The spiral tube helps reduce deposit build-up and increases efficiency by performing a “scoop-and-lift” action and the counter-flow design provides optimum heat transfer.
• Internal Automatic Water Bypass
• Plumbing Connections Off-set 2” PVC union connections with 45° elbows provided

Digital Control - Basic Functions
• Pool/Spa Control
  Your digital heat pump pool heater can be set to have different target temperatures for your pool and spa. This allows you to dial in just the right spa temperature and never have to adjust it again. The pool can be set to a lower, more energy saving temperature.
• Remote Compatible
  The digital heat pump pool heater can be easily controlled by most two-wire and three-wire remote systems. The digital display will flash “Remote” to let you know that it is under control of a third-party automation system. Simply press the UP and DOWN buttons for 3 seconds to release the control from the remote mode and regain local control.
• On Board Diagnostics
  Tells you, the homeowner, if there is a problem. Provides the service technician with detailed diagnostic information in real English.

Digital Control - Built-in Mini Automation
• Limited Budget?
  Now you can have both a heat pump AND automation, for the price of just a heat pump!
• Solar Priority Control
  Allows solar to be the primary heat source, with your heat pump as a back up booster.
• Heat Pump Priority Gas Heater Back Up Control
  Heat pump is the primary source for heat, with gas as a booster when needed.
• Multi Unit Control
  Stages heaters ability to come on by delaying the start.
• 3-Way Valve Control
  Control and program 3-way valves to work with pool and spa mode on digital control. No external parts to buy.
• Pump Control and Time Clock

Warranty
• 2 years Labor and 7 years Parts
  10 years on the heat exchanger tube, see warranty for details.
• Best in Class Warranty Service
  Same day in the major cities in Florida, 24-48 hours most everywhere else. Areas outside of Florida are 24 to 48 hours with certain designated major cites having same day service. Check with your Raypak sales person for warranty service details in your area. We try harder!